CDL-165ETHG

ETHERNET/USB to HDMI/ VGA Display Converter

Operation Manual

CDL-165ETHG

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Safety Precautions

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	*Date*	*Summary of Change*
RDV1	***20101117***	***Preliminary Release***
RDV2	***20110126***	***Adding Ethernet's S/W***
RDV3	***20110421***	

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1. Introduction

The device that can send audio/video signals from a Notebook/PC over a localarea network through regular Ethernet cables to a TV which can be used as the primary display. When a keyboard and mouse are plugged in, the device will lets you to edit word processing documents and play your music/movies on a TV. Supporting a direct connection up to 100 meters away when using network cables, this gadget also includes two USB ports which let users operate printers, scanners and other USB devices at the same time, just like a PC. This is useful in many different scenarios, for example: During meetings each attendee would be able to access a projector from their laptop without having to fumble with any cables as long as they are connected to the network. This device can also be used as a simple USB to HDMI signal converter thanks to its mini USB input port.

2. Applications

- Educational teaching
- Home entertainment
- Office network
- Household network

3. Package Contents

- Ethernet/USB to HDMI/VGA Converter
- 5V/2.6A DC power adaptor
- User Manual
- Driver CD

4. System Requirements

- System Hardware Requirements: 2.4 GHz single core CPU with at least 1GB RAM for optimal performance
- Operating Systems:
  Windows XP Home or Professional 32 bits SP2
  Windows Vista 32 bits
  Windows 7

Note:

- 1080p resolution workds best with an USB connection up to 2M long
- The ethernet interface does not support MAC OS whereas the USB can support Mac OS x v10.4.11 and v10.5.6

USB Port Extension:

- An available USB 2.0 port with USB to mini USB cable

Network Extension:

- An available Ethernet port at home or a commercial network with RJ-45 cable

5. Features

- Supports HDMI & VGA outputs
- 16/32-bit Color for high-quality images
- HD resolution up to 1920 x 1080
- HDMI and RGB display connectivity
- EDID selection with switch for VGA or HDMI output
- Experience the complete PC environment on a TV from 100M away
- Allows a TV to act as the primary PC display and use keyboard and mouse to browse the internet, Micorsoft Office, watch/listen to movies/ music from any networked computer
- Supports high performance 16-bit stereo, 48KHz audio sampling
- Supports TCP/IP ethernet protocols
- Supports 10/100/1000Mbps Ethernet
- Extend or mirror audio and video through a network or USB cable to an HDMI display
- Share HDMI display with multiple users through your existing office or home IP network
- Add an HDMI display to your computer through a USB 2.0 port
- Supports mirror and extended video modes

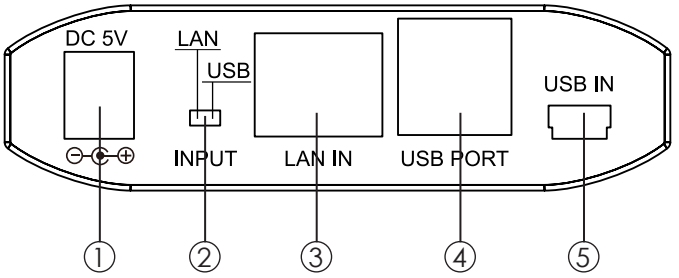
6. Specifications

Video Resolution	Up to 1600 x 1200 /1920 x 1080 (wide)
Video Input	1 x Ethernet RJ-45; 1 x USB 2.0
Network Protocol	TCP/IP
Video Output Ports	1 x HDMI, 1 x D-Sub 15pin VGA
Extender Ports	2 x USB Hubs (A type)
Audio Output	1Vp-p 47KΩ 3.5Ø Phone jack
Operating System Support	Windows, XP SP2, Vista 32bits and Window 7
Power Supply	5V DC/2.6A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ± 8kV (air-gap discharge) ± 4kV (contact discharge)
Dimensions (mm)	119(W) x 88(D) x 25(H)
Weight(g)	120
Chassis Material	Plastic
Silkscreen Color	Black
Power Consumption	11W
Operating Temperature	0˚C ~ 40˚C / 32˚F ~ 104˚F
Storage Temperature	-20˚C ~ 60˚C / -4˚F ~ 140˚F
Relative Humidity	20~90% RH (non-condensing)

7. Operation Controls and Functions

The following sections describe the hardware components of the unit, include a step by step installation guide and other suggested settings.

7.1 Front Panel



① DC 5V: This slot is where you plug the 5V DC power supply into the unit and connect the adaptor included in the package to an AC wall outlet.

② INPUT LAN/USB Switch: This switch allows users to choose input source signal from ethernet or PC/laptop.

③ LAN IN: This slot is to connect with CAT5e/6 cable from your network system.

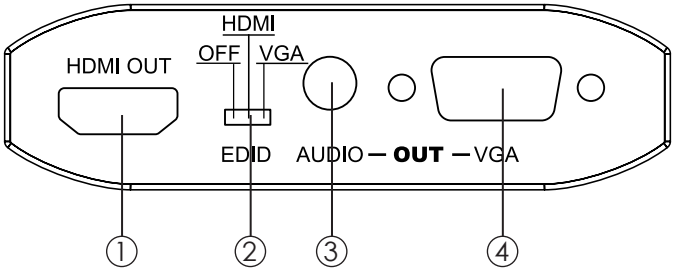
④ USB PORT: These ports act like a USB hub, allowing users to connect an External Hard Drive, Keyboard, or Mouse.

Note:

- These two USB ports cannot be connected to a USB extension hub, doing so will trigger the system to detect the external Hub and will cause a system failure.
- Before removing the USB device, the user must follow the USB devices hardware removal procedure. Failure to do so will cause the system to crash.

⑤ Mini USB IN: This port support mirror or video extension (via USB cable) from the PC/laptop source device to your HDMI display, including both video and audio output signals.

7.2 Back Panel



① HDMI OUT: This slot is to plug the output HDMI display with HDMI cable for video and audio output.

② EDID control switch: The default setting for this switch is on HDMI, leave the switch here as long as the connected display is compatible. When switch to off it'll allows users to use the built in EDID, the device must re-powered in order to execute this function. However, from off to HDMI/VGA will not require such action. Built in EDID as follow: 640 x 480, 720 x 480, 768 x 576, 800x 600, 1024 x 768, 1280 x 720, 1280 x 1024, 1360 x 768, 1366 x 768, 1440 x 900, 1600 x 1200, 1680 x 1050, 1920 x 1080.

③ AUDIO OUT: This slot is to connect with two side 3.5 phone jack cable to active speakers or PC monitor with speaker output for audio signal output.

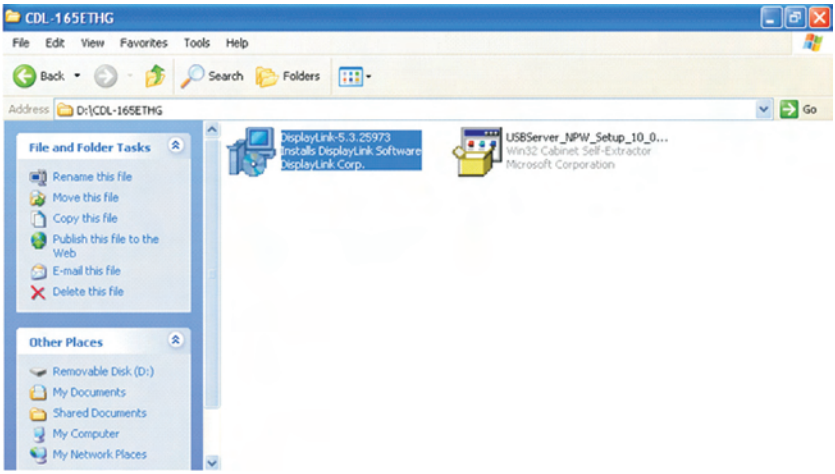
④ VGA OUT: This slot is to connect to display monitor or TV that has D-Sub 15 pin input for video signal output.

8. Software Installation

The following sections list the procedures to follow when installing the USB to HDMI and USB device drivers. Insert the provided CD into your CD-ROM drive, then begin the USB Install Disc and follow the below steps to install the driver.

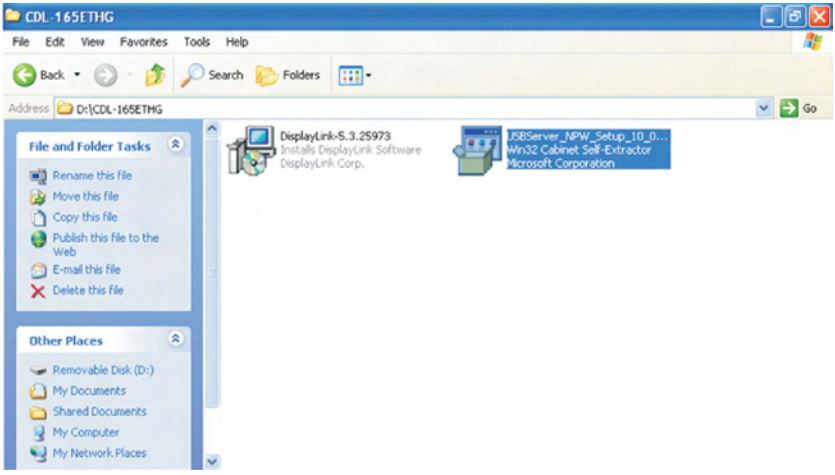
8.1 Install DispalyLink Software

Insert the CD driver included in the package and double click on the DisplayLink icon to execute the setup.



8.2 Install USB Server Software

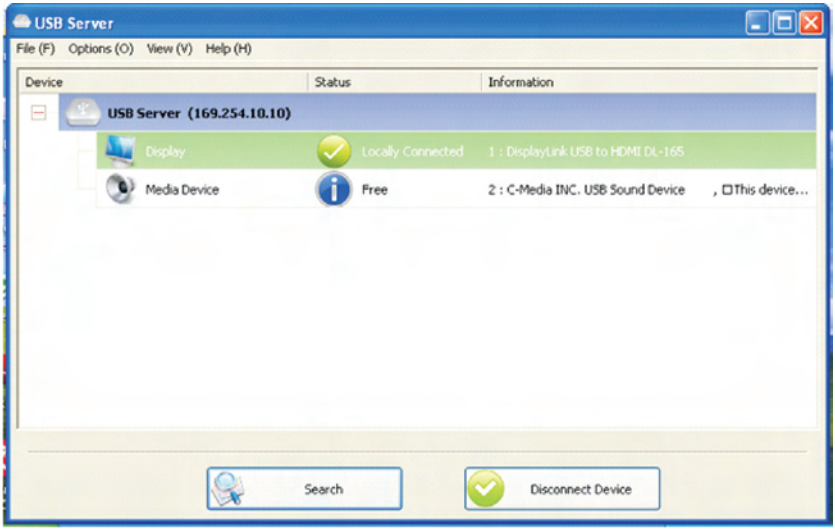
Double click on the USBServer Setup icon to execute the set up and click finish when the setup is complete.



When both DisplayLink and USBServer has been installed completely the USB Server's icon should appear on the desktop and the button right side of the desktop.

8.3 Using USB Server

Double click on the Launch USB Server icon from the desktop or from the button right side and the USB Server window will appear on the desktop. **Connect both PC/Laptop and the device with RJ-45 cable and click on Search and switch the INPUT switch on the device to LAN.**

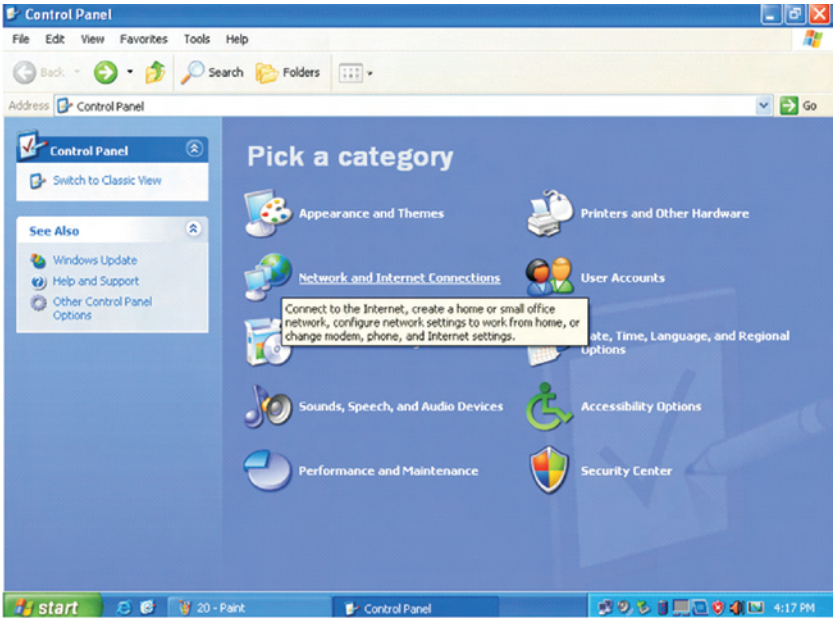


Once the connection is done click on Connect Device next to the Search for both Display and Media. When the connection is done the Status will appear with "✓" mark. When disconnecting click on "Disconnect Device".

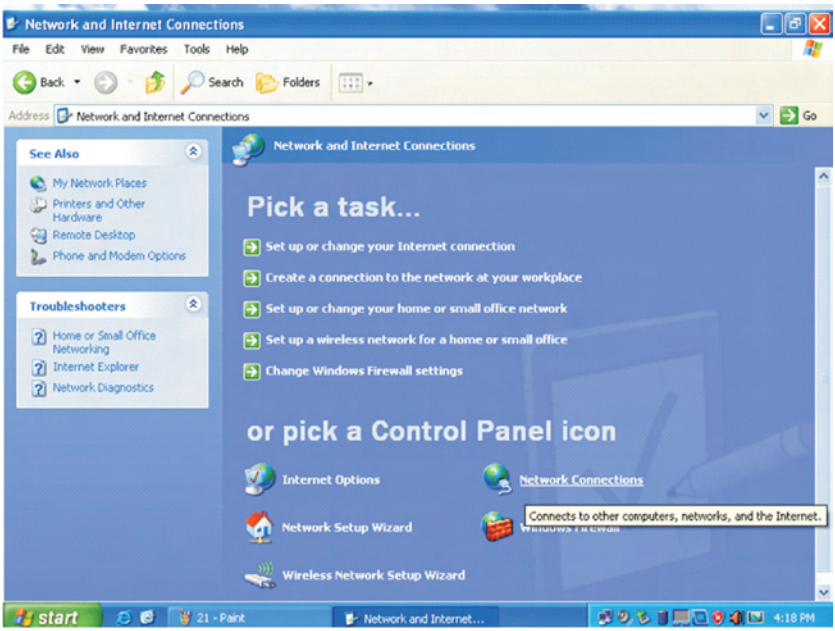
8.4 IP Property Setting

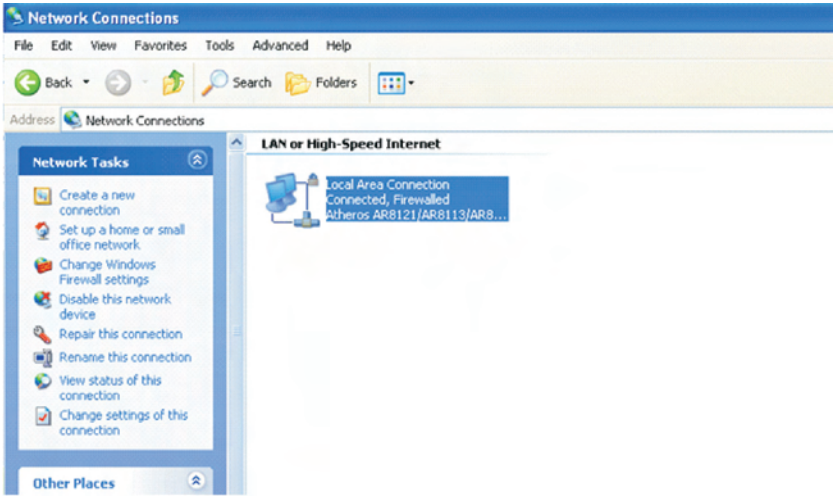
When selecting LAN INPUT a special IP setting is required. Please follow the setting below to make the correct setting.

Click Control Panel from the Window's start.

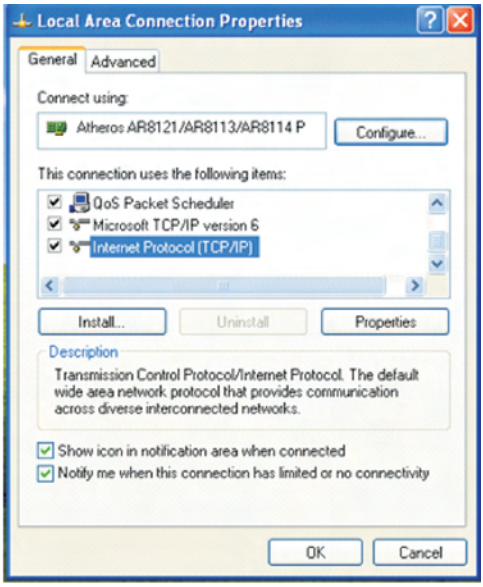


Click on the Network and Internet Connection and select Network Connections.

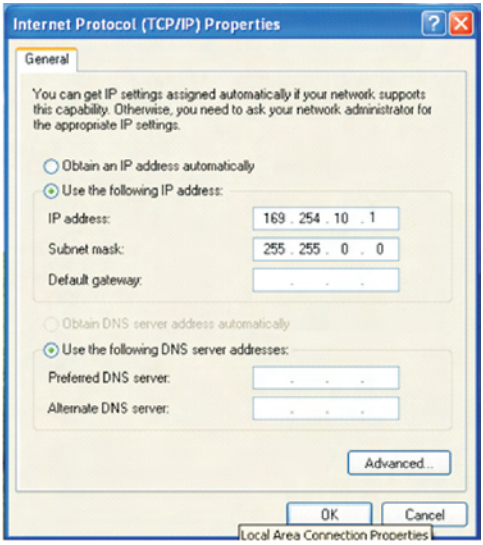

Network and Internet Connections
File Edit View Favorites Tools Help
Back Search Folders
Address Network and Internet Connections
Go
See Also
My Network Places
Printers and Other Hardware
Remote Desktop
Phone and Modem Options
Troubleshooters
Home or Small Office Networking
Internet Explorer
Network Diagnostics
Network and Internet Connections
Pick a task...
Set up or change your Internet connection
Create a connection to the network at your workplace
Set up or change your home or small office network
Set up a wireless network for a home or small office
Change Windows Firewall settings
or pick a Control Panel icon
Internet Options
Network Connections
Network Setup Wizard
Connects to other computers, networks, and the Internet.
Wireless Network Setup Wizard
start
21 - Paint
Network and Internet...
4:18 PM



Double click on the Local Area Connection



Double click on the Internet Protocol (TCP/IP)

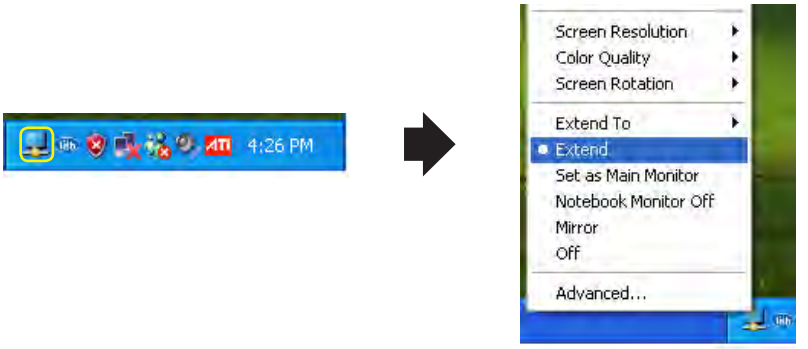

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
169 . 254 . 10 . 1
Subnet mask:
255 . 255 . 0 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel
Local Area Connection Properties

Click on “Use the follow IP address” and set the IP address and Subnet mask. The IP address setting should remain at 169.254.10.X (X can be 0~255) and Subnet mask can remain as 255.255.0.0

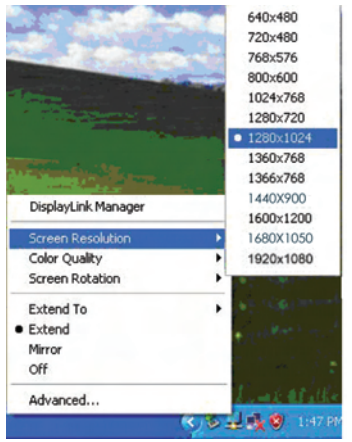
9. *Using DisplayLink Manager*

9.1 Using DisplayLink Manager

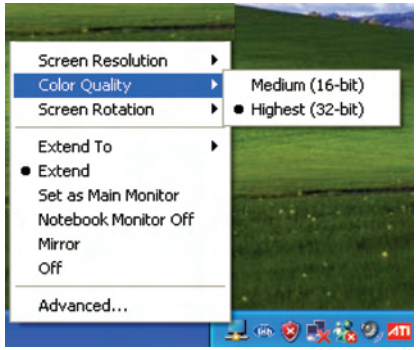
After the driver is installed, a utility (DisplayLink Manager) will automatically appear in the system tray. The utility allows you to quickly change the settings and resolution for DisplayLink Manager. Right click on the icon will bring out the context menu.



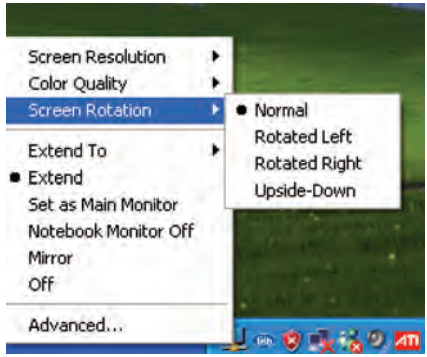
- ***Screen Resolution:*** Select the screen resolution (available only in extended mode).
  NOTE: When the display has a built in EDID the screen will show the display's resolution, if no EDID is present the screen has the following resolution (see below image)



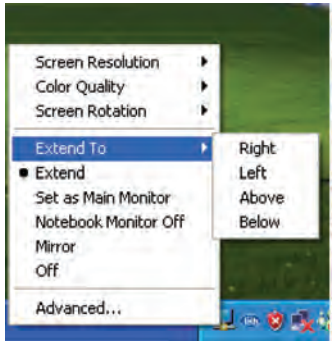
■ ***Color Quality:*** Select the screen color quality (available only in extended mode).



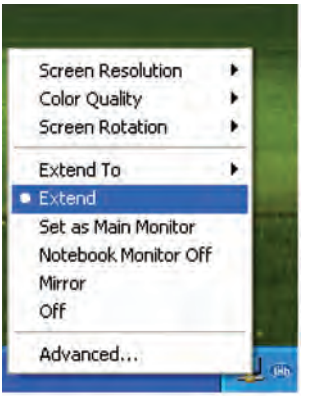
■ ***Screen Rotation:*** Rotate the screen on the additional monitor by 90, 180 or 270 degrees.



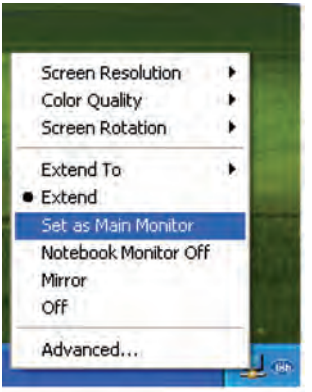
■ ***Extend to:*** Reposition the extended screen to the top, bottom, left or right of the primary display.



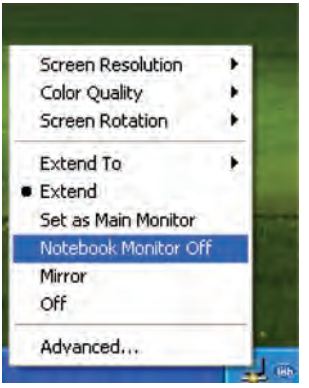
■ ***Extend:*** Set the DisplayLink Manager to Extended mode.



■ ***Set as Main Monitor:*** Set the monitor to be the main monitor.

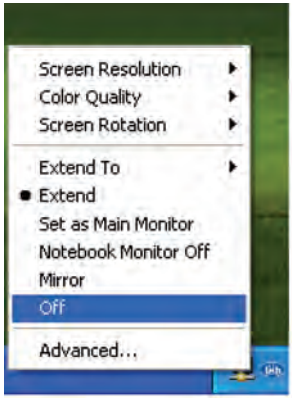


■ ***Notebook Monitor off:*** Set the PC/notebook's monitor off.



■ ***Mirror:*** Set the DisplayLink Manager to Mirror mode. You can see the same desktop image on the additional monitor.

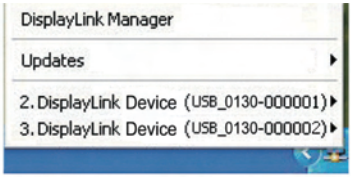
■ ***Off:*** Disable the DisplayLink Manager on the system.



■ ***Advanced:*** Opening the ***Display Properties*** will allow you to adjust the resolution, color quality, position and refresh rate.

9.2 *Using More DisplayLink manager*

You don't have to install a new driver as long as you have completed the above installation process in advance. It will automatically define the ID of the new Display Link Manager and will list everything in the Display properties or the display manager menu.



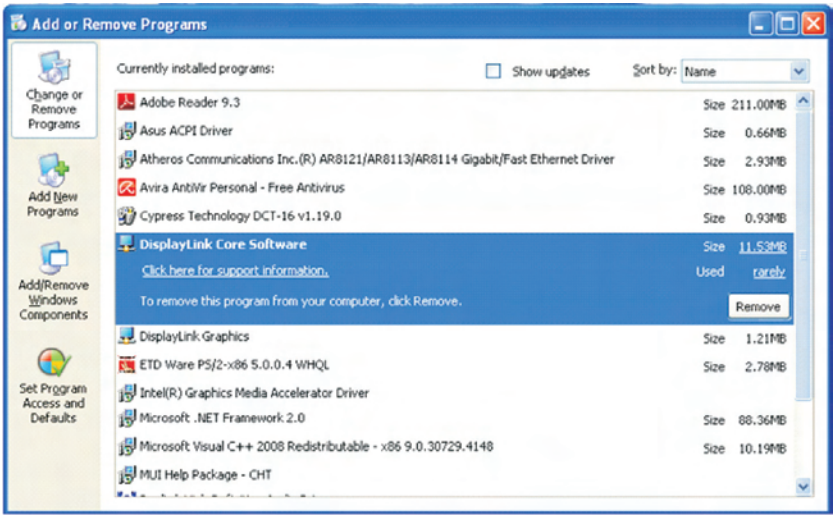
NOTE: When connecting more DisplayLink Manager to a computer, a system with higher CPU performance is recommended.

10. Uninstall the Device Driver

Follow the steps below to uninstall the Multi View driver.

Step 1: Open the Control Panel: ***Start → Control Panel → Add or Remove Programs.***

Step 2: Select **DisplayLink Core Software** and click **Remove**.


Add or Remove Programs
Change or Remove Programs
Add New Programs
Add/Remove Windows Components
Set Program Access and Defaults
Currently installed programs:
Show updates
Sort by: Name
Adobe Reader 9.3 Size 211.00MB
Asus ACPI Driver Size 0.66MB
Atheros Communications Inc.(R) AR8121/AR8113/AR8114 Gigabit/Fast Ethernet Driver Size 2.93MB
Avira AntiVir Personal - Free Antivirus Size 108.00MB
Cypress Technology DCT-16 v1.19.0 Size 0.93MB
DisplayLink Core Software Size 11.53MB
Click here for support information. Used rarely
To remove this program from your computer, click Remove. Remove
DisplayLink Graphics Size 1.21MB
ETD Ware PS/2-x86 5.0.0.4 WHQL Size 2.78MB
Intel(R) Graphics Media Accelerator Driver
Microsoft .NET Framework 2.0 Size 88.36MB
Microsoft Visual C++ 2008 Redistributable - x86 9.0.30729.4148 Size 10.19MB
MUI Help Package - CHT

Step 3: Click Yes to confirm the removal.

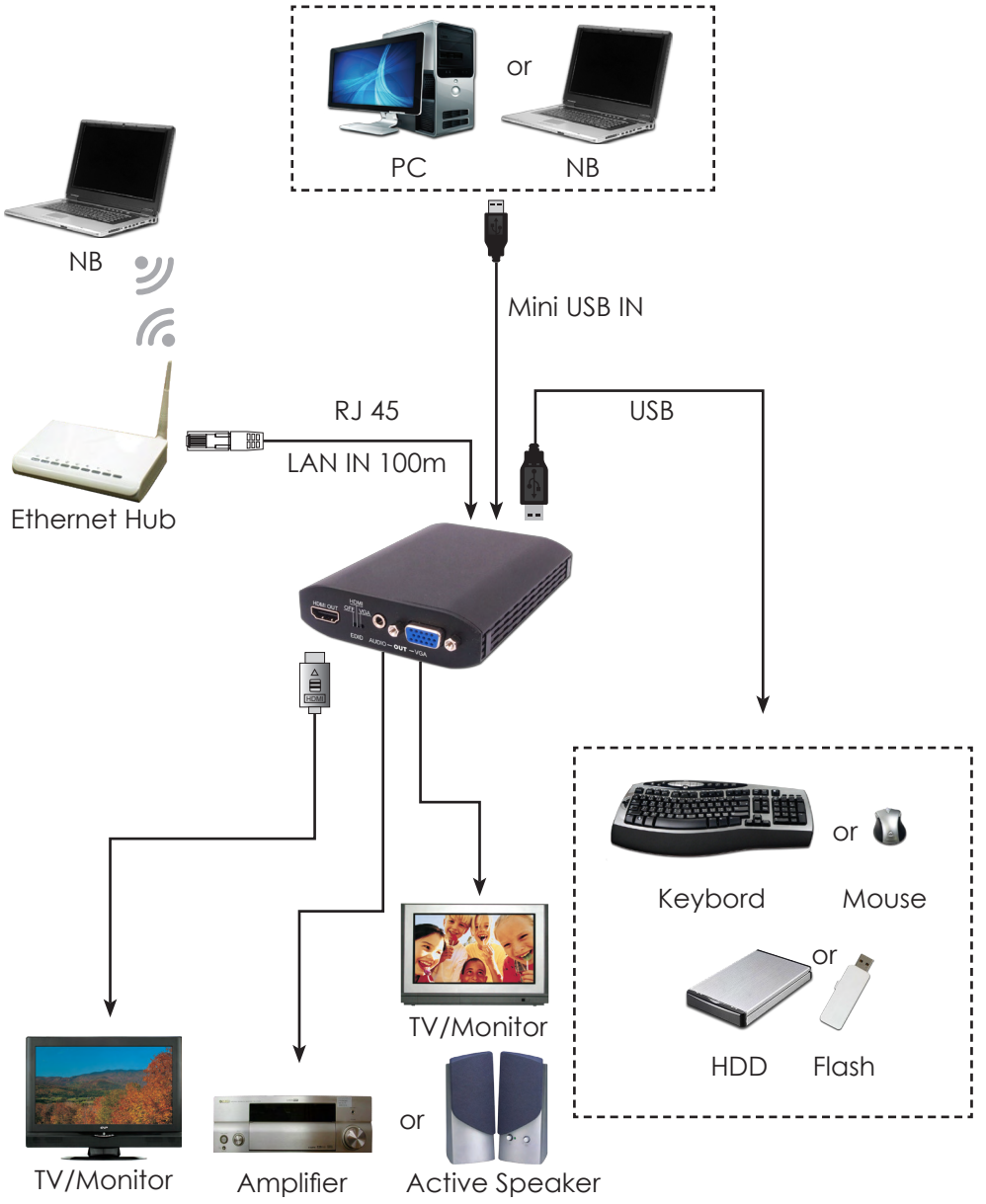
Step 4: Click Yes to restart your computer.

DisplayLink Core Software
You must restart your system for the configuration changes made to DisplayLink Core Software to take effect. Click Yes to restart now or No if you plan to manually restart later.
Yes
No

Then select **DisplayLink Graphics** and click **Remove**. Finally, select **USB Server** and click **Remove**.

Add or Remove Programs
Change or Remove Programs
Add New Programs
Add/Remove Windows Components
Set Program Access and Defaults
Currently installed programs:
Show updates
Sort by: Name
DisplayLink Core Software Size 11.53MB
DisplayLink Graphics Size 1.21MB
ETD Ware PS/2-x86 5.0.0.4 WHQL Size 2.78MB
Intel(R) Graphics Media Accelerator Driver
Microsoft .NET Framework 2.0 Size 88.36MB
Microsoft Visual C++ 2008 Redistributable - x86 9.0.30729.4148 Size 10.19MB
MUI Help Package - CHT
Realtek High Definition Audio Driver Size 49.09MB
Super Hybrid Engine Size 0.29MB
USB Server Size 5.31MB
Click here for support information.
Used frequently
Last Used On 2/12/2011
To change this program or remove it from your computer, click Change or Remove.
Change
Remove
WowUSBProtector Size 30.47MB

11. Connection and Installation



12. Troubleshooting

Situation	*Check Point*
The device driver has been installed, but the DisplayLink Manager is not working	1. Make sure you restart your computer after the driver installation. 2. Check all the connectors are plugged in correctly. 3. Make sure the USB port that you are using is USB 2.0. 4. Check the additional monitor is connected correctly and the power is on. 5. Make sure the operating system, the Display-Link Manager is compatible with Windows XP, Vista (32bit) and Windows 7. 6. Try a different USB 2.0 or computer. 7. Check USB cable's specification.
DVD player is not working when moved to the extended display	1. Change another software player.
The mouse does not move passed the right side during extended desk top mode.	1. Check the display settings and make sure that your display number 2 is on the right side of display number 1.

Acronyms

A

Acronym	*Complete Term*
EDID	Extended Display Identification Data
HDMI	High-Definition Multimedia Interface
VGA	Video Graphics Array

CYPRESS TECHNOLOGY CO., LTD.
Home page: http://www.cypress.com.tw

20101122 MPM-CDL165ETHG